

## Product datasheet for **RG238703**

### MYH (MUTYH) (NM\_001293195) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MYH (MUTYH) (NM_001293195) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MYH
Synonyms:	MYH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG238703 representing NM\_001293195.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGAGGAAGCCACGAGCAGCCGTGGGAAGTGGTCACAGGAAGCAGGCAGCCAGCCAGGAAGGGAGGCAG
AAGCATGCTAAGAACAACAGTCAGGCCAAGCCTTCTGCCTGTGATGGCCTGGCCAGGCAGCCGGAAGAG
GTGGTATTGCAGGCCTCTGTCTCCTCATACCATCTATTACAGAGAGCTAGCTGAAGTCACAGCCTCCGA
GGGAGCCTGCTAAGCTGGTACGACCAAGAGAAACGGGACCTACCATGGAGAAGACGGGCAGAAGATGAG
ATGGACCTGGACAGGCGGCATATGCTGTGTGGGTCTCAGAGGTCATGCTGCAGCAGACCCAGGTTGCC
ACTGTGATCAACTACTATAACCGATGGATGCAGAAGTGGCCTACACTGCAGGACCTGGCCAGTGCTTCC
CTGGAGGAGGTGAATCAACTCTGGGCTGGCCTGGGCTACTATTCTCGTGGCCGGCGGCTGCAGGAGGGA
GCTCGGAAGGTGGTAGAGGAGCTAGGGGGCCACATGCCACGTACAGCAGAGACCTGCAGCAGCTCCTG
CCTGGCGTGGGGCGCTACACAGCTGGGGCCATTGCCTCTATCGCCTTTGGCCAGGCAACCGGTGTGGTG
GATGGCAACGTAGCACGGGTGCTGTGCCGTGCCGAGCCATTGGTGTGATCCCAGCAGCACCCCTTGT
TCCCAGCAGCTCTGGGGTCTAGCCCAGCAGCTGGTGGACCCAGCCGGCCAGGAGATTTCAACCAAGCA
GCCATGGAGCTAGGGGCCACAGTGTGTACCCACAGCGCCCACTGTGCAGCCAGTGCCCTGTGGAGAGC
CTGTGCCGGGCACGCCAGAGAGTGGAGCAGGAACAGCTCTTAGCCTCAGGGAGCCTGTGGGGAGTCCCT
GACGTGGAGGAGTGTGCTCCCAACTGGACAGTGCCACCTGTGCTGCCTCCCTCGGAGCCCTGGGAC
CAGACCTGGGAGTGGTCAACTTCCCCAGAAAGGCCAGCCGCAAGCCCCCAGGGAGGAGAGCTCTGCC
ACCTGTGTTCTGGAACAGCCTGGGGCCCTGGGGCCAAATTCTGCTGGTGCAGAGGCCAACTCAGGT
CTGCTGCAGGACTGTGGGAGTCCCGTCCGTGACCTGGGAGCCCTCAGAGCAGCTTCCAGCGAAGGCC
GTGCTGCAGGAACACAGCGTTGGGCTGGGCCCTCCAGCCACGCACCTCCGGCACCTTGGGGAGGTT
GTCACACCTTCTCACAATCAAGCTGACATATCAAGTATATGGGCTGGCCTTGGAAAGGCCAGACCCCA
GTGACCACCGTACCACCGGTGCTCGCTGGCTGACGCAGGAGGAATTTACACCCGAGCTGTTTCCACC
GCCATGAAAAAGGTTTTCCGTGTGTATCAGGGCCAACAGCCAGGGACCTGTATGGTTCCAAAAGGTCC
CAGGTGTCCTCTCCGTGCAGTCGAAAAAGCCCCGCATGGGCCAGCAAGTCTGGATAATTTCTTTCGG
TCTCACATCTCCACTGATGCACACAGCCTCAACAGTGCAGCCAG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

**Protein Sequence:**

>Peptide sequence encoded by RG238703  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MRKPRAAVGSGHRKQAASQEGRQKHAKNNSQAKPSACDGLARQPEEVVLQASVSSYHLFRDVAEVTAFR
GSLLSWYDQEKRDLPWRRRAEDEMDLDRRAYAVWVSEVMLQQTQVATVINYYTGWMQKWPTLQDLASAS
LEEVNQLWAGLGYYSRGRRLQEGARKVVEELGGHMPRTAETLQQLLPGVGRYTAGAIASIAFGQATGVV
DGNVARVLCRVRAIGADPSSTLVSQQLWGLAQQLVDPARPGDFNQAAAMELGATVCTPQRPLCSQCPVES
LCRARQRVEQEQLLASGSLSGSPDVEECAPNTGQCHLCLPPSEPWDQTLGVVNFPRKASRKPREESSA
TCVLEQPGALGAQILLVQRPNSGLLAGLWFFPSVTWEPSEQLQRKALLQELQRWAGPLPATHLRHLGEV
VHTFSHIKLTYQVYGLALEGQTPVTTVPPGARWLTQEEFHAAVSTAMKKVFRVYQGQPGTCMGSKRS
QVSSPCSRKKPRMGQVLDNFFRSHISTDAHSLNSAAQ
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

**Restriction Sites:**

Sgfl-Mlul

## Cloning Scheme:

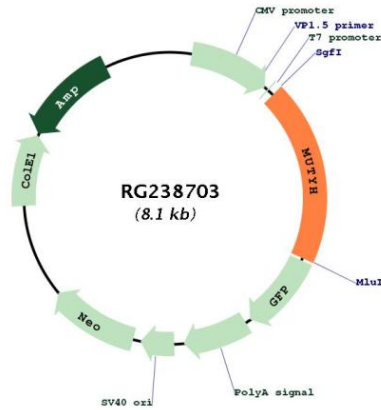


ACCN:	NM_001293195
ORF Size:	1563 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
RefSeq:	<a href="#">NM_001293195.1</a> , <a href="#">NP_001280124.1</a>
RefSeq Size:	1860 bp
RefSeq ORF:	1566 bp
Locus ID:	4595
UniProt ID:	<a href="#">Q9UIF7</a>
Cytogenetics:	1p34.1
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Base excision repair
MW:	57.4 kDa

**Gene Summary:**

This gene encodes a DNA glycosylase involved in oxidative DNA damage repair. The enzyme excises adenine bases from the DNA backbone at sites where adenine is inappropriately paired with guanine, cytosine, or 8-oxo-7,8-dihydroguanine, a major oxidatively damaged DNA lesion. The protein is localized to the nucleus and mitochondria. This gene product is thought to play a role in signaling apoptosis by the introduction of single-strand breaks following oxidative damage. Mutations in this gene result in heritable predisposition to colorectal cancer, termed MUTYH-associated polyposis (MAP). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2017]

**Product images:**



Circular map for RG238703